

IN THE CLAIMS:

1. (Currently Amended) A radio knife comprising:

an electrically insulative flexible sheath having a flow channel inside, a distal end portion and a proximal end portion, the distal end portion of the sheath having a distal opening and an axis;

a support member which closes the distal opening of the sheath, the support member having a slide hole with a diameter smaller than that of the distal opening extending along the axis thereof;

an operating wire axially movable in the sheath;

an electrode portion which has a distal end portion and a proximal end portion and of which at least a part forms a rod-shaped portion, the proximal end portion of the electrode portion being coupled to the operating wire, the rod-shaped portion being passed through the slide hole for axial projection and retraction;

a control section which is provided on the proximal end portion of the sheath and controls the operating wire to project and retract the electrode portion in the axial direction, the control section having a high-frequency current supply portion which supplies a high-frequency current to the electrode portion;

a liquid feed portion which is provided on the proximal end side of the sheath and feeds a liquid through the flow channel inside the sheath towards the distal opening; and

a plurality of straight rectangular openings extending outward from the slide hole, an inner end portion of each of the straight rectangular openings being coupled to the slide hole, wherein an entire width of each of the plurality of straight rectangular openings is set to a dimension such that it cannot be penetrated by the electrode portion.

2-6. (Cancelled)

7. (Previously Presented) A radio knife according to claim 1, wherein the sheath has an extending portion extending ahead of the support member, the extending portion having an internal space which stores the electrode portion.

8. (Original) A radio knife according to claim 1, wherein the electrode portion has an extending portion located on the distal end portion of the rod-shaped portion and extending across the extending direction of the rod-shaped portion.

9. (Original) A radio knife according to claim 8, wherein the extending portion is a hooked bent portion extending substantially at right angles to the distal end portion of the rod-shaped portion.

10. (Original) A radio knife according to claim 8, wherein the extending portion is a platelike electrode portion coupled to the distal end portion of the rod-shaped portion.

11-14. (Cancelled)

15. (Previously Presented) A radio knife according to claim 1, wherein the sheath has an extending portion which is made to extend in front of the support member, and the extending portion has an internal space with contains the electrode portion.

16. (Canceled)

17. (Currently Amended) A radio knife comprising:
an electrically insulative flexible sheath having a flow channel inside, a distal end portion and a proximal end portion, the distal end portion of the sheath having a distal opening and an axis;

a support member which closes the distal opening of the sheath, the support member having a slide hole with a diameter smaller than that of the distal opening extending along the axis thereof;

an operating wire axially movable in the sheath;

an electrode portion which has a distal end portion and a proximal end portion and of which at least a part forms a rod-shaped portion, the proximal end portion of the electrode portion being coupled to the operating wire, the rod-shaped portion being passed through the slide hole for axial projection and retraction;

a control section which is provided on the proximal end portion of the sheath and controls the operating wire to project and retract the electrode portion in the axial direction, the control section having a high-frequency current supply portion which supplies a high-frequency current to the electrode portion;

a liquid feed portion which is provided on the proximal end side of the sheath and feeds a liquid through the flow channel inside the sheath towards the distal opening; and

a plurality of triangular openings extending outward from the slide hole, an inner end portion of each of the triangular openings being coupled to the slide hole, ~~wherein a width of each of the plurality of triangular openings is set to become narrower outward from the slide hole such that it cannot be penetrated by the electrode portion~~ wherein a triangular aperture into which the rod-shaped electrode portion is inserted for advance and retreat is formed in the distal end of the sheath, said triangular aperture is a triangular hole in which the rod-shaped electrode portion is inscribed, and parts of said triangular aperture other than that part which is occupied by the rod-shaped electrode portion form openings, individually.

18. (Previously Presented) A radio knife according to claim 17, where the distal end portion of the electrode portion comprises a triangular plate arranged perpendicular to a longitudinal direction axis of the electrode portion.